



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0016

JOHN ELIAS BALDACCI  
GOVERNOR

DAVID A. COLE  
COMMISSIONER

December 5, 2006  
Subject: **Orono**  
Project No. STP-1307(900)X  
Pin No. 13079.00  
**Amendment No. 1**

Dear Sir/Ms:

Please make the following change to the Bid Documents:

ADD the attached: "Special Provision, Section 608, Detectable Warnings for Curb Ramps, (Preformed Thermoplastic)" dated December 4, 2006 two pages total.

The following questions have been received.

**Question:** Can you provide a detail for the Detectable Warning Plates?

**Response:** See attached Special Provision Section 608.

**Question:** Are any utility adjustments anticipated to accommodate for the installation of underdrain and/or new subbase, especially in the areas such as Station 10+690 to Station 10+840 RT where it appears the existing waterline would fall within the underdrain trench or within your subgrade/subbase?

**Response:** The water main will be placed at a depth that far exceeds the depth of the underdrain to be placed. No adjustments are anticipated.

**Question:** We have been informed that a substantial amount of PM RAP, possibly as much as 2000 tons were paved over portions of the project in 2006. This material would not be represented in the 2002-2003 soils report. Is this material represented in the 90mm-185mm core depth range stated on page 4 of 14 of the Construction Notes?

**Response:** Yes



PRINTED ON RECYCLED PAPER

**Question:** Will the presence of the PM RAP paved in 2006 impact the mix design of the new PM RAP, if the new PM RAP option is chosen?

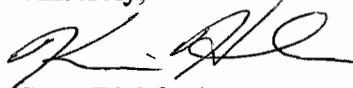
**Response:** It's not anticipated, but is allowed under "Special Provision, Section 310, Plant Mix Recycled Asphalt Pavement, Mix Design"

**Question:** Will the PM RAP placed in 2006 need to be removed in a separate operation from the existing roadway pavement milling, if the new PM RAP option is chosen?

**Response:** No

Consider this change and information prior to submitting your bid on December 6, 2006.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Bickford", written over a horizontal line.

Scott Bickford  
Contracts & Specifications Engineer

SPECIAL PROVISION  
SECTION 608

DETECTABLE WARNINGS FOR CURB RAMPS  
(Preformed Thermoplastic)

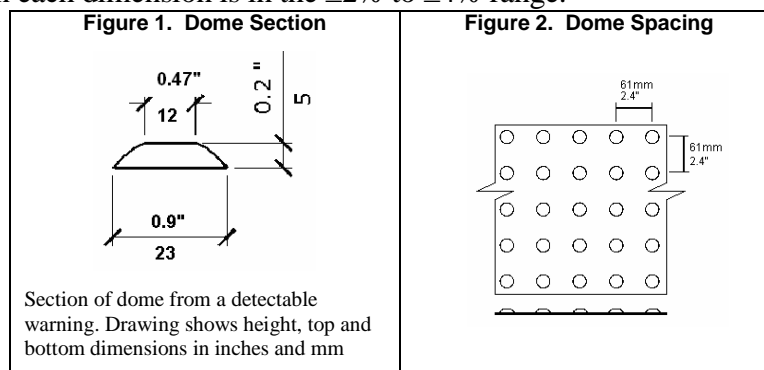
Description: This Special Provision describes furnishing and installing durable preformed detectable warning material suitable for use on pedestrian access routes, i.e. side walks, walking surfaces, curb ramps, ramps, blended transitions, and crosswalks. The material must be a resilient preformed thermoplastic product with uniformly distributed abrasives both on the surface and throughout the material to provide skid resistance. The material must be resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids etc. The material must be capable of being affixed to bituminous and/or Portland Cement Concrete pavements by the use of the heat of a propane torch. at the locations shown in the plans and in accordance with the plans or as established by Project Personnel.

Construction Requirements: All base courses and joints shall conform to the applicable subsections of Division 700 of the Standard Specifications. All curb ramp reconstruction shall conform to section 608 Reconstruct Existing Pedestrian Ramp.

Materials: The Contractor shall provide new material composed of ester modified rosins in conjunction with aggregates, pigments, and binders which have been factory produced as a finished product. The material must be impervious to degradation by motor fuels, lubricants etc. The truncated domes must be an integral part of the preformed thermoplastic material. All parts of the material must be a preformed thermoplastic material. The material shall consist of two preformed thermoplastic parts only: A domed preformed thermoplastic material and a preformed thermoplastic adhesive layer. TopMark, as manufactured by Flint Trading, Inc., P.O. Box 160, Thomasville, NC 2731-0160, Tel. 336-475-6600, or approved equal.

(1) Pigments and Color: Yellow; sufficient yellow pigment shall be used to ensure a color in compliance with FHWA's Color Specifications for Pavement Markings (FHWA Docket No. FHWA-99-6190 as revised and corrected) daytime chromaticity limits. The yellow pigment must be of an organic nature only and contain no lead chromate or other heavy metals. The color pigment must be distributed throughout the thickness of the detectable warning material.

(2) Geometry: The detectable warning material should meet the dimensions shown in Figures 1 and 2. The tolerance on each dimension is in the  $\pm 2\%$  to  $\pm 4\%$  range.



(3) Dimensions: The detectable warning material shall be supplied as a kit that contains a domed preformed thermoplastic surface material and a preformed thermoplastic adhesive material. The manufacturer will supply the domed material and the adhesive material in sections that measure 12 in (30 cm) in width and 24 in (61 cm) in length.

(4) Hardness: The hardness of the domed preformed thermoplastic material shall be above 80 Shore A when tested according to ASTM D 2240.

(5) Slip Resistance: The static coefficient of friction shall be 0.8 or greater when measured on the top of the truncated domes and 0.8 or greater when measured between the domes as tested per ASTM C 1028-96 (dry).

(6) Environmental Resistance: The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

(7) The material shall be solvent free and contain no hazardous chemicals.

**Installation:**

Asphalt and Portland Cement Concrete: The adhesive material must be able to be applied to both bituminous and non-bituminous surfaces without the use of a sealer. The domed, preformed, thermoplastic material must be able to fuse with the adhesive layer to create a durable bond. The materials shall be applied using the propane torch recommended by the manufacturer. The material must be able to be applied at ambient and substrate temperatures at 45°F and rising. The products must be applied according to the manufacturer's instructions. The pavement shall be clean, dry, free of debris, and fully cured. Supplier must enclose application instructions with each box/package.

**Protecting and Maintaining:**

Protecting: Protect tiles against damage from rolling loads following installation by covering with plywood or hardwood.

Maintenance Instructions: Submit copies of manufacturer's specified maintenance practices for each type of tactile tile and accessory as required. This information shall be shared with local highway maintenance personnel.

**Method of Measurement:**

Detectable warnings on new curb ramps, including concrete, cast-in-place tiles, and all other work and materials necessary for fabrication, transport, and installation will not be measured and paid for separately, but shall be included in the work.

**Basis of Payment:**

Payment will be full compensation for all labor, materials, and equipment required to install the truncated domes including surface preparation and removal/replacement of concrete or asphalt.

**Pay Item**

608.26 Curb Ramp Detectable Warning Field

**Pay Unit**

Square Meter